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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/084,505	02/28/2002	Kazunori Okano	HIRA.0026	7472

7590

09/12/2003

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EXAMINER

OLSEN, KAJ K

ART UNIT

PAPER NUMBER

1753

DATE MAILED: 09/12/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/084,505

Applicant(s)

OKANO ET AL.

Examiner

Kaj Olsen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 2-7 and 9-13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
3. In claims 2 and 10-12, the use of the phrase “by providing a gap” is confusing. First, the “by providing” is grammatically awkward. Second, this limitation appears to imply that the electrophoretic medium is formed *because* of the provision of the gap (e.g. read the whole limitation beginning “an electrophoresis medium” of claim 2). However, it would appear that the gap itself isn’t crucial to the formation of the electrophoretic medium itself, but rather that the gap is an additional feature of the formed electrophoretic medium. Third, it is unclear what actually possesses the gap in question (the electrophoresis medium? the substrate?). The examiner has interpreted the gap as being on the electrophoresis medium, but clarification is requested.
4. In claims 2 and 10-12, the limitation “in one place in a longitudinal direction” is confusing. First, it is unclear what “in one place” is referring to (one place of the electrophoresis medium or substrate?). Second, the “in a longitudinal direction” is confusing because it is unclear if the applicant is specifying that the gap has a longitudinal direction or if the applicant is specifying that the gap is located at a particular place along a longitudinal direction of the

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electrophoretic medium. The examiner has interpreted is as being the latter of the two possibilities, but clarification is requested.

5. In claim 9, there is no antecedent basis for "said gap" or "said longitudinal direction".

6. In claims 10 and 11, it is unclear how to interpret "almost in parallel". Literally, this would be interpreted as not including completely parallel, which the examiner believes is inadvertent. The examiner believes these phrases should be written as --substantially parallel--.

7. In claim 10, the phrases "one ends" and "other ends" is grammatically awkward. The examiner recommends the applicant amend the claim to read --one end[s] of each-- and --other end[s] of each-- respectively.

8. In claim 11, the last limitation drawn to the plural pairs of electrodes is confusing. The examiner believes a --each of-- should be inserted between "of" and "said".

Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10. Claims 1 and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Oh (USP 5,904,824).

11. With respect to claim 1, Oh discloses a chip for the performance of electrophoresis comprising an electrical insulating substrate 10 and a linear electrophoresis medium 18 formed

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on the surface of said substrate (fig. 1). The regions 14 adjacent to the electrophoresis medium are hydrophobic (see abstract).

12. With respect to claim 8, Oh teaches the use of 200 micron wide channels which resides within the claimed dimensions.

Allowable Subject Matter

13. Claim 9 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

14. Claims 2-7 and 10-13 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action.

15. The following is a statement of reasons for the indication of allowable subject matter: the prior art does not disclose nor render obvious an electrophoresis chip having the specified hydrophilic and hydrophobic region(s) in conjunction with the specified gap of claims 2 and 10-12.

Conclusion

16. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Chait and Itoh disclose electrophoretic mediums possessing gaps, but do not specify the claimed use of hydrophilic and hydrophobic region(s).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kaj Olsen whose telephone number is (703) 305-0506. The

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examiner can normally be reached on Monday through Thursday from 7:00 AM-4:30 PM. The examiner can also be reached on alternate Fridays.

If attempts to reach the examiner are unsuccessful, the examiner's supervisor, Mr. Nam Nguyen, can be reached at (703) 308-3322.

When filing a fax in Group 1700, please indicate in the header "Official" for papers that are to be entered into the file, and "Unofficial" for draft documents and other communications with the PTO that are not for entry into the file of this application. This will expedite processing of your papers. The fax number for regular communications is (703) 305-3599 and the fax number for after-final communications is (703) 305-5408.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist, whose telephone number is (703) 308-0661.

A handwritten signature in black ink, appearing to read 'Kaj K. Olsen', with a stylized flourish at the end.

Kaj K. Olsen
Patent Examiner
AU 1753
September 8, 2003